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AN UNDESCRIBED HELICONIA IN THE NEW
YORK BOTANICAL GARDEN

BY ROBERT F. GRIGGS

Bihai geniculata sp. nov.

Plant about 4 m. tall (stem to base of peduncle 2 m., petiole 4–6 dm., blade 12.5 dm.), erect, with the habit of *B. Champneiana* but with only 2–3 leaves to a stalk at a time. Leaf 120–150 cm. long, about 30 cm. wide, oblique, narrowed or rounded at the base, acute or suddenly very short-acuminate at the tip, green and glabrous, main veins 10–13 mm. apart. Inflorescence 20–30 cm. long, red, erect, sessile or on a peduncle up to 15 cm. long, of 9–10 bracts, which are of very unequal ages so that the flowers in the lower are in fruit before the upper open. Rachis nearly straight, stiff, the whole inflorescence including pedicels and flowers covered with a thin soft evanescent tomentum. Branch-bracts (distichous in the bud) becoming three-ranked by the twisting of the rachis, horizontally divaricate at anthesis, later reflexed, about 25 mm. apart; the lowest fertile one 15–25 cm. long, 3 cm. around at the widest part, the upper a little shorter, narrowly triangular, straight-sided, scarcely tapering to the very acute tip; the red of the rachis is continued onto the branch-bracts but they are paler at the base within and without and have an equilateral triangle of yellow, which appears on their sides near the point of attachment and extends nearly to the bottom when young, later disappearing so that they are entirely red after anthesis. Flowers 12–20 in each bract but of very diverse age, so that only about two are in season at once, closely appressed into the channel of the bracts until near anthesis, when they become erect by the upward bending of the pedicel, but quickly deflexed again by a sharp bend of about 90° appearing in the perianth above the ovary, whence the name *geniculata*; free sepal always on the lower side after deflection and more strongly bent, forming a decided lip; pedicels and ovary greenish-yellow, sepals yellow, as are the petals except for a bright patch of dark green on the lower edges of the two exposed by the reflexed lip.

The type is growing in the greenhouses of the New York Botanical Garden, no. 19668, and herbarium sheets are preserved in the same institution. Its native habitat is unknown. It came from the Department of Parks of the Borough of the Bronx in

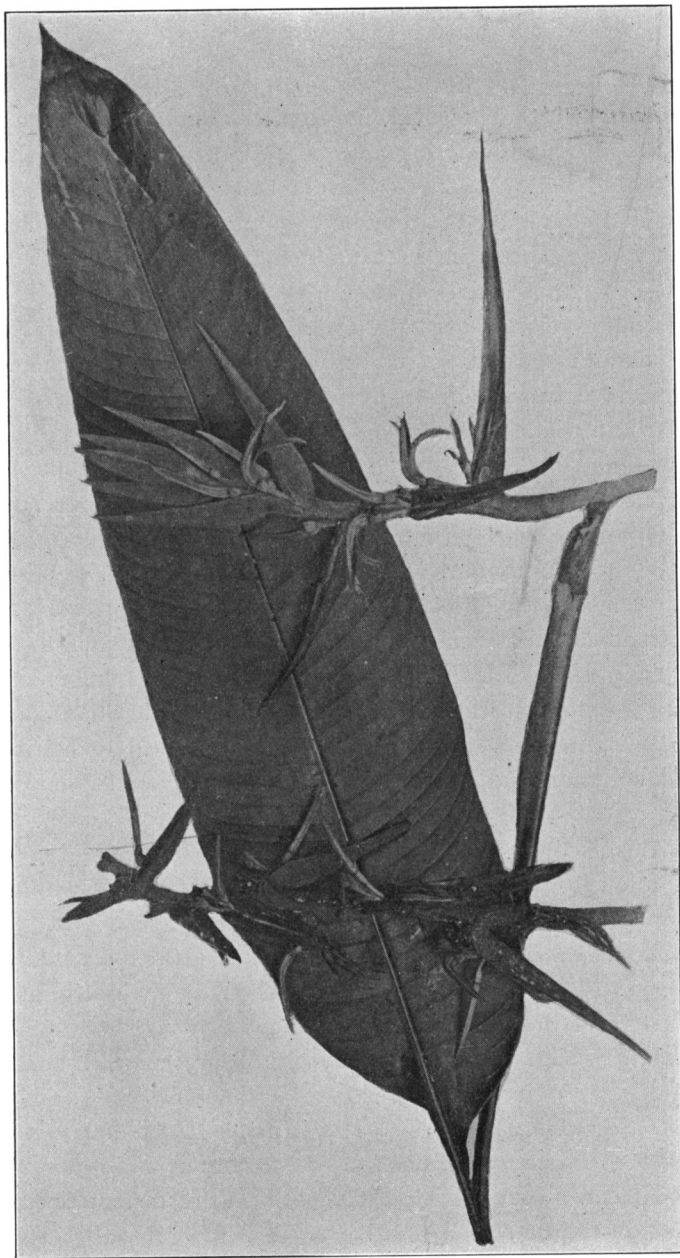


FIGURE 1. *Bihai geniculata* Griggs.

1902, where it had been in cultivation for some time. It flowers in December.

Of the older species, *B. geniculata* is most similar to *Bihai brasiliensis* which, however, is smaller, has fewer, ascending, bracts, and quite differently colored flowers. *B. tortuosa* is the only other species known to have a three-ranked inflorescence, which is a character that may be of some taxonomic significance as it involves considerable rearrangement of the bracts, and the inflorescence has been supposed to be truly distichous. But unfortunately it is a character not at all adapted to be preserved in herbarium specimens, and only in those few cases where the species have been studied alive can we find out which are distichous and which three-ranked or irregular.

It is unfortunate that the habitat of the species has been lost track of. The geographical distribution of the various species may have some bearing both on taxonomy and on larger problems of plant geography because of the apparently limited means of distribution possessed by the plant. We have, however, by no means sufficient data on the various species of the group to make any generalizations as to distribution. A large number of the species are known from a single collection, while others, as for example *B. latspatha* and *B. psittacorum*, are so widely distributed and so common that they occur in almost every collection of the genus.

On this account I have thought it worth while to add notes of distribution from several collections which have come within my notice.

Bihai acuminata (Rich.). Near Izabal, Guatemala, alt. circ. 750 feet, *W. A. Kellerman*, Feb. 23, 1907. As nearly as one can tell from dried specimens this plant agrees exactly with *B. acuminata*, which has not previously been reported north of Colombia.

B. Champneiana (Griggs). Los Amates, Guatemala, alt. 295 feet, *W. A. Kellerman*, Feb. 23, 1907. Previously reported up to 4,000 feet. Like the type except for a greenish streak along the keel of the bracts.

B. Collinsiana (Griggs). El Palmar, dep. Quezaltenango,

Guatemala, alt. 2,300 feet, *W. A. Kellerman*, Feb. 11, 1906, *no.* 5890; Jan. 16, 1907, *no.* 6073. Has leaves less glaucous than the type, also more flowers to a bract. The flowers, which were wanting in the type, are lemon-yellow.

B. crassa (Griggs). Near Izabal, Guatemala, alt. circ. 750 feet, *W. A. Kellerman*, Feb. 23, 1907. Previously reported up to 3,000 feet.

B. elongata (Griggs). Monkey Hill, Panama, *Cowell*, *no.* 17. Previously known from Guatemala alone.

B. humilis (Jacq.). Santa Marta, Colombia, *H. H. Smith*, *no.* 2551, with the field note "Erect, 6-7 feet. Local on damp hill-sides, generally in second growth or open forest 1,500-4,000 feet. Flowers, June-Sept. Specimen is from Don Amo. 2,000 feet. Flower greenish, bract red, edge above and apex green." This specimen has the typical short round leaves of *B. humilis* together with the brightly colored inflorescence just as figured by Jacquin.

B. pendula (Wawra). Volcano Santa Maria, Guatemala, alt. 4,500 feet, *W. A. Kellerman*, Jan. 19, 1907, *no.* 6076. Previously reported only from Brazil. These plants are close to the type except in size; instead of being 3 m. they are nearly 7 m. tall.

B. rostrata (Ruiz & Pavon). Bolivia, *Miguel Bang*, *no.* 2568. Typical.

B. spissa (Griggs). Huatusco, Mexico, alt. circ. 6,000 feet, *Fred. Mueller*, 1853, *no.* 401. This station is very far north and at a great altitude for a tropical plant.

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THE GENUS *SHORTIA*

BY HOMER DOLIVER HOUSE

The story of the elusive *Shortia galacifolia* of the southern Appalachian mountains is one of the most interesting chapters in American botanical history. The plant was discovered by Michaux more than a hundred years ago, but in fruit only, and remained unknown to other botanists until detected by Asa Gray in the Michaux herbarium in Paris in 1839. Upon his return to